Abstract of the Disclosure

A method schedules packets in a router of a packet-switched network. The network has a set of service classes including a premium service, an assured service, and a best-effort service. The router includes one queue for each service class. Each queue stores packets to be transmitted according to the associated service class. The method measures an exponential weighted moving average queue length of the queue associated with the premium service each time a packet is stored in that queue. Bandwidth is increased if the average increases over a minimum threshold. The bandwidth remains below an upper limit once the average reaches a maximum threshold.